619-B-314 ALTERNATE FINISH COAT FOR PARTIAL PAINT SYSTEM

(Revised 05-20-23)

The Standard Specifications are revised as follows:

SECTION 619, BEGIN LINE 436, DELETE AND INSERT AS FOLLOWS:

619.09 Paint Systems

Paint systems shall be applied in accordance with the manufacturer's recommendations. The dry film thickness of a paint coating will be measured with a calibrated film thickness gauge in accordance with SSPC PA 2. All paint coatings shall have a dry film thickness not less than 80% of the required dry film thickness.

(a) Structural Steel Paint System

The coating system shall consist of an inorganic zinc primer with a dry film thickness of 3 mil, an epoxy intermediate coat with a dry film thickness of 4 mil, and a polyurethane finish coat with a dry film thickness of 3 mil for the painting of steel bridges and other structural steel.

(b) Partial Paint System

The coating system shall consist of ~~organic zinc primer with a dry film thickness of 3 mil and a waterborne finish coat with a dry film thickness of 3 mil~~*one of the following* for partial painting of steel bridges and other structural steel. *The primer and finish coat may be from different manufacturers. The Contractor shall ensure that the primer and selected finish coat are compatible.*

1. *Organic zinc primer with a dry film thickness of 3 mil and a waterborne finish coat with a dry film thickness of 3 mil.*

2. *Organic zinc primer with a dry film thickness of 3 mil and a polysiloxane finish coat with a dry film thickness as noted below. The polysiloxane finish coat shall be one of those listed below.*

    a. *Carboxane 2000, 4 mil,*
    b. *Interfine 2700, 4 mil,*
    c. *Polysiloxane 1K, 2.5 mil,*
    d. *PSX 700, 4 mil, or*
    e. *Sher-Loxane, 4 mil.*

3. *Organic zinc primer with a dry film thickness of 3 mil and a polyurethane finish coat with a dry film thickness of 3 mil. The polyurethane finish coat shall be one of those listed below.*

    a. *Amercoat 450 HS,*
    b. *Carbothane 134 HS,*
    c. *INDOT Acrylic Urethane or*
    d. *Interthane 990 HS.*

Polyurethane finish coat used as a finish coat in the partial paint system shall be in accordance with 909.02(c) with the exception that the specular gloss shall be a minimum

of 30 and the color of the dried paint film shall be in accordance with either 909.02(c), or the following:

Color Number	*Color*
23538	*Yellow*
23711	*Buff*
24260	*Green*
24466	*Light Green*
25488	*Light Blue*
27038	*Black*
27886	*White*

SECTION 909, BEGIN LINE 61, INSERT AS FOLLOWS:

2. Organic Zinc Primer

Organic zinc primer shall be a self-curing primer. It shall be in accordance with SSPC Paint Specification No. 20, Type II. The organic zinc primer shall be compatible with inorganic zinc and finish coat paints already on the bridge. The color shall be able to produce a distinct contrast with blast cleaned metal surface and the finish coat. The cured organic zinc film shall be compatible with a top coating of *either* waterborne*, polysiloxane, or polyurethane* finish coat paint.

The organic zinc primer shall also be in accordance with the following requirements.

SECTION 909, BEGIN LINE 143, INSERT AS FOLLOWS:

(c) Polyurethane Finish Coat

Polyurethane finish coat shall be a two-component polyester or acrylic aliphatic polyurethane suitable for use as a finish coat over *either* epoxy intermediate paint *for the structural steel coating system or over organic zinc primer for partial painting of steel bridges.*

SECTION 909, AFTER LINE 247, INSERT AS FOLLOWS:

(f) Polysiloxane Finish Coat

Polysiloxane finish coat shall be suitable for use as a finish coat over organic zinc primer for partial painting of steel bridges.

The mixed paint shall be in accordance with the following requirements.

Volatile organic compounds, ASTM D3960, max. .....336 g/L
Volume solids, ASTM D2697, min. 55%
Total solids ASTM D2369, min. 65%
Specular gloss, 60°, ASTM D523, min.....30
Contrast ratio, ASTM D2805, 5 ±0.5 mils wet film thickness,
dried 24 h on opacity chart 2A or 2C, min. 0.95

The color of the dried paint film shall match the color number of SAE-AMS-STD-595 as follows:

Color Number	*Color*

23538	*Yellow*
23717	*Buff*
24227	*Green*
24466	*Light Green*
25526	*Light Blue*
27038	*Black*
27780	*White*